Testimony of
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Mr. Chairman, and Members of the Committee, I am pleased to have the opportunity to share my views on how recent events in the energy markets could shape your deliberations on the Federal Budget. The impact of higher energy prices on the American economy is surely among the factors you must weigh as you consider the budget resolution and other important fiscal issues. A summer of gasoline and electricity price spikes, a winter of extraordinary heating bills, and the ongoing California electricity crisis all remind us of the importance of secure, affordable energy.

My testimony today centers primarily on the effects of the recent energy price escalation on consumers, the energy supply industry, and the economy as a whole. Several major energy prices have reached historic highs during the past year. However, the reasons for these price increases, and the longevity and impacts of these increases, vary considerably. The federal response to this situation should therefore target specific issues raised by energy sector developments with appropriate measures. In short, the best federal response to today's energy situation is a balanced set of policy as well as fiscal choices.

Petroleum Markets

Let's begin with petroleum. Crude oil prices have risen from a low of $12/barrel (Bbl) just two years ago to $25 to $35/Bbl over the past year. These price increases have reawakened concerns that high oil prices could trigger a recession, along with many other harmful impacts. Indeed, at their recent peak, oil prices were as high in real terms as they were in 1973, the second highest level in modern times. These high crude oil prices have translated into significantly higher product prices -- particularly gasoline, diesel and aviation fuels -- that have led to increased costs for personal and commercial transportation.

Fortunately, it appears that oil prices *alone* are not likely to stay high enough long enough to cause widespread economic harm. Oil prices are widely expected to moderate over the next two years and remain within a $22 to $28 price band. Barring new disruptions, the impact of these price levels on economic growth is expected to be on the order of one- to three-tenths of a percent of GDP

growth. Only if oil prices were to hit the $30 range or above for significant periods would these impacts increase dramatically.

The fact that oil prices can rise to present levels without incurring major macroeconomic damages is unquestionably good news. Our economy uses almost 50% less oil per unit of GDP than we did 20 years ago. The New Economy has vastly expanded our economic activity and our electricity use, and our transportation habits have raised our demand for motor fuels, but our overall economic growth is less and less coupled with oil use.

Mr. Chairman, this is good news. But beyond this salutary achievement, the rest of our energy picture raises great concern.

Natural Gas and Electricity Prices

While our economy has become less dependent on oil, we are increasingly dependent on natural gas. Natural gas now supplies nearly 25% of our total energy use and it is particularly important for industry and power generation. Currently, industrial natural gas consumption is three time the level of residential consumption or power production. However, gas used in powerplants is expected to quadruple in the next 20 years, as 95% of the 250,000 megawatts of projected new plants choose this fuel.

Continued growth in gas demand and other factors have caused an imbalance that has brought gas storage to its lowest level since 1976. The reduction of this storage buffer has increased both the level and volatility in natural gas prices. Natural gas prices have risen from $2.50/MMBtu in 1999 to $7.20/MMBtu today, and they are expected to decline quite slowly over the next two years. These price increases cost the average gas-heat family almost $400 this winter and add roughly 4¢ to 5¢ per kilowatt hour to the price of electricity made from gas. Put another way, today's gas prices more than double the price of gas-fired electricity in many parts of the US, including California.

Mr. Chairman, much has been written and said about the electricity crisis in California, and I will not dwell on it in these remarks. However, there are four irrefutable features of the California crisis. First, there is a critical shortage of natural gas pipeline capacity into the state. Second, there is an equally critical shortage of generation and transmission capacity in California and across much of the West. Third, the state failed to maximize its conservation and demand reduction opportunities, both of which are critical for effective electric markets. Fourth and finally, all these factors ensure very high prices for power throughout the West for the next several years. Today, throughout this region, wholesale power prices are six times as high as last year's levels and the highest they have been in at least 60 years.

These features are more troubling, Mr. Chairman, because they are likely to occur - - or are already occurring - - in much of the rest of the United States. Parts of the U.S. have ample generating capacity, but other regions are perilously low on reserves, and new transmission lines are not getting

built. Amazingly, in a nation whose electric demand has increased over 14% in the last six years, total industry investment in transmission assets has declined, and very few major new lines are underway anywhere in the U.S.

The implications of this situation is that high and volatile natural gas and power prices are likely to be with us for several years, especially in the West and transmission-constrained urban areas. In contrast to oil prices, which are not at levels high enough to cause a major dislocation, electricity and gas prices are projected to remain sufficiently high and volatile so as to introduce an unprecedented degree of uncertainty over the economy during the next few years.

Impacts of High Gas and Electric Prices

While we have a sense of the impact of oil prices on GDP, the combination of our emerging New Economy and our newfound reliance on gas-fired power leaves us with little in the way of a secure road map. Yet common sense tells us that gas and electricity prices cannot stay this high for very long without damage to the western U.S. economy and therefore the nation. Higher energy prices are particularly impacting manufacturing, which helps explain this sector's recent slowdown. But the impacts are also broad. For example, economists at the University of Texas recently concluded that the *net* effect of higher gas prices on Texas, taking into account higher producer earnings, was substantially negative. Each $1 per thousand cubic foot (MCF) increase in gas prices cost the state a net $3.4 billion in output and 34,000 jobs. This will be even more true in California, where each additional $1/MCF in gas price raises electricity bills by $340 million for one utility's customers.

It is already clear that high energy prices and supply concerns are bringing hardship on families and businesses. Homeowners are just now seeing 40% to 70% increases in their winter fuel bills. Electricity price increases of 6% to 20% are occurring all across the West and in many parts of the East as well. The price spikes of last summer cost the citizens of San Diego an estimated $1.5 billion in direct costs and $15 billion in lost business. UPS has added its first fuel surcharge in 20 years and the airlines have doubled theirs. According to the National Association of Manufacturers, high energy prices have already caused 6% of all firms in the US to lay off employees, with an additional 10% expected next year. In California, where these problems have been worst, 82% of the residents believe their power shortages will impair economic growth for the next few years.

I believe additional economic fallout from the present constrained state of the gas-electric infrastructure is yet to come. Improving energy conservation and demand response, as well as adding new plants, lines, and pipelines will take several years, and not just in California. This summer is likely to produce more shortages and price spikes in the West and probably in several other markets as well.

Energy Supply Industries

Before closing, let me briefly focus on the other side of this equation, which is the energy producers. The record high energy prices are leading to record high profits for many energy producers and traders. Domestic oil and gas exploration is at its near-term limit, with new well completions and rig counts at very high levels.

The economic performance of the supply sector has several positive aspects. First, higher prices and earnings will spur these sectors to invest in expanded capacity, which is critical. Hundreds of thousands of megawatts of new power capacity and $500 billion worth of new natural gas infrastructure is needed over the next decade to keep our energy supply-demand balance. In addition, these higher prices help spur the development of more efficient, less fuel-dependent technologies. For example, American automakers are today accelerating plans to sell so-called hybrid vehicles that burn conventional fuels, but achieve mileage of 55 mpg or better for an average-sized vehicle.

Thus, it is critical that the Committee understand that the market will eventually adjust both supply and demand to remove the structural imbalances producing today's high prices. While it is important to treat the economic and social pain over the next several years, and address barriers to better demand and supply response, it is *not* appropriate to conclude that the nation is permanently short on energy, that energy market policies pursued over the past 25 years were failures, nor that a crash program of expanded supply or relaxed environmental rules is warranted.

Conclusions

In closing, let me try and sum up the fiscal and budgetary implications of these complex developments.

First, the primary energy-related threat to economic growth is sustained high natural gas and electricity prices, coupled in some cases with reduced availability or reliability. Because the power and gas deliverability picture may get worse before it gets better, the Committee should carefully weigh the risks of this unprecedented phenomenon to business activity and personal income. And regardless of these risks, the federal government should be prepared for increased low-income energy assistance – a need that is undoubtedly felt today.

A number of added policy responses are needed to address our energy problems, but from the fiscal standpoint it will remain important to continue investing in energy efficiency programs and energy supply R&D, particularly renewable and distributed generation and advanced vehicle research. With respect to these crucial federal investments, sound budgeting becomes sound policy.

In the long run, there is no reason why the United States cannot achieve a robust, environmentally sustainable, low-cost energy industry. Indeed, the technological prospects have never been better.

For the next few years, however, high and volatile prices and supply uncertainties will cast a shadow over the economy, heightening the need for energy assistance and clean technology investments.

Mr. Chairman, I am honored to have the privilege of sharing these views with you, and I would be happy to answer questions.